

ENDANGERED SPECIES AND THE PRECAUTIONARY PRINCIPLE

WORKSHOP: Friday 17 October 2014
C412 Board Room (C block, level 4)
QUT Brisbane City Campus

DISCUSSION PAPER

Background

This discussion paper is intended to provide background material for the workshop organised by Queensland University Technology (QUT) on 17 October 2014. The overall purpose of the workshop is to better understand the relationship between the precautionary principle and endangered species management in Australia. In particular, we are looking for real life examples (or hypotheticals) of where the principle is (or is not) being applied in relation to Australia's endangered species.

A wide variety of participants have been invited to the workshop including scientists, representatives of NGOs, lawyers and academics. Whilst some very general information is outlined below, we encourage all participants to bring their own thoughts on how the precautionary principle should operate and to reflect on examples of where you have seen it work (or not work) in Australia. The sharing of your own case studies is thus encouraged.

Outputs of the workshop

The outputs of the workshop are twofold. Firstly, QUT are currently applying a draft methodology developed by the IUCN on implementation of principles of environmental law. This workshop will help to generate ideas that may form part of that research. Secondly, QUT will take the lead on preparing an edited collection of papers (in 2015) on 'endangered species in Australia and precautionary decision-making' or a similar title. If you would like to take part in that publication, please raise ideas at the conclusion of the workshop.

Questions for workshop participants

So that we keep some focus to the day, presenters are asked to specifically address some or all of the following questions:

1. What do you consider the precautionary principle to mean? How do you see it applying to endangered species?
2. In your view, how relevant is the precautionary principle to endangered species management?
3. Do you, or have you, considered or thought about the application of the principle in your day to day work in relation to endangered species?
4. Are there any policies in place to ensure you consider the precautionary principle in your day to day work or in your area of work generally?
5. What examples have you seen of the precautionary principle being used (or not used) in practice?
6. Going forward, what suggestions can you offer for better implementation of the principle?

ENDANGERED SPECIES AND THE PRECAUTIONARY PRINCIPLE
DISCUSSION PAPER FOR WORKSHOP AT QUT, Friday 17 October 2014.

Endangered species in Australia

Australia is one of only seventeen ‘mega diverse’ countries in the world. Together, mega diverse nations represent less than 10 per cent of the earth’s surface but account for more than 70% of the world’s biodiversity.¹ Australia is home to 65 internationally renowned wetlands (Ramsar wetlands) and an estimated 560,000 species.² Almost 10 percent of the world’s species occur only in Australia.³ Yet Australia is also an austere, uncompromising and arid landscape. It has the lowest rainfall of all the inhabited continents and the lowest percentage of rainfall as surface water.⁴

Many components of Australian species have rapidly declined since Europeans arrived in the 1788.⁵ The main threats to species in Australia are (and have been for some time) vegetation clearing, invasive species and pathogens, inappropriate fire regimes, cattle grazing and climate change.⁶ Unfortunately, there is very limited long-term data on virtually all groups of plants, animals and other organisms. The result is that Australia is not in a position to adequately assess rates and directions of change in species numbers.⁷

Australia’s approach to Endangered Species

Australia is a federal system and has three levels of government – Federal, State and Local.⁸ All three levels of government have various laws and policies aimed at protecting species, many of which overlap, but few of which, it seems, are delivering on intended outcomes. For example, the koala is protected under federal, state and some local laws yet koala populations continue to decline in South East Queensland and other parts of Australia.

The national government, realising the decline in species since European arrival, have appointed a *Threatened Species Commissioner* for the first time. The role of the Commissioner is to “address the growing number of native flora and fauna in Australia facing extinction.”⁹ The

¹ Australian Government, Department of Environment (2014) ‘Australia’s Fifth National Report to the Convention on Biological Diversity’ (Department of the Environment, Canberra) 5.

² Ibid.

³ Ibid.

⁴ Ann Young, *Environmental Change in Australia since 1788*, 2nd ed (Oxford University Press) 14.

⁵ State of the Environment 2011 Committee. Australia state of the environment 2011—in brief. Independent report to the Australian Government Minister for Sustainability, Environment, Water, Population and Communities. Canberra: DSEWPAC, 2011 <<http://www.environment.gov.au/system/files/pages/ed429e86-f992-4cf6-8e4e-75292af11969/files/soe2011-inbrief-complete.pdf>> 38.

⁶ State of the Environment 2011 Committee. Australia state of the environment 2011—in brief. Independent report to the Australian Government Minister for Sustainability, Environment, Water, Population and Communities. Canberra: DSEWPAC, 2011 <<http://www.environment.gov.au/system/files/pages/ed429e86-f992-4cf6-8e4e-75292af11969/files/soe2011-inbrief-complete.pdf>>.

⁷ State of the Environment 2011 Committee. Australia state of the environment 2011—in brief. Independent report to the Australian Government Minister for Sustainability, Environment, Water, Population and Communities. Canberra: DSEWPAC, 2011 <<http://www.environment.gov.au/system/files/pages/ed429e86-f992-4cf6-8e4e-75292af11969/files/soe2011-inbrief-complete.pdf>> 38.

⁸ There are close to 750 local councils in Australia with varying degrees of funding and natural resource governance laws.

⁹ Australian Government, Department of Environment, ‘Threatened Species Commissioner’ <<http://www.environment.gov.au/biodiversity/threatened/commissioner>>.

ENDANGERED SPECIES AND THE PRECAUTIONARY PRINCIPLE
DISCUSSION PAPER FOR WORKSHOP AT QUT, Friday 17 October 2014.

move sees a focus on ‘priority national threatened species’ in the wild. This seems to accept that it is not possible to save all species from extinction and that some form of prioritisation is necessary.

The Precautionary Principle

Perhaps the most often cited definition of the principle comes from the 1992 Rio Declaration on the Environment and Development:

“Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”¹⁰

The principle has been incorporated into numerous international conventions including the *Convention on Biological Diversity*, the *Montreal Protocol on Substances that Deplete the Ozone Layer* and the *OSPAR Convention for Protection of Marine Environment of the North East Atlantic*.

In similar terms to the Rio Declaration, the precautionary principle is also contained in the *United Nations Framework Convention on Climate Change* (‘UNFCCC’). Article 3(3):

“The parties should take precautionary measures to anticipate, prevent or minimise the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible context.”¹¹

International law scholars have argued that the principle is so widely recognised that it is now part of customary international law.¹²

But what does the principle really mean?

[NOTE: This information is very general in nature. For more detail see the IUCN’s 2007 guidelines for applying the precautionary principle to conservation management [available here](#)]

Generally speaking, the precautionary principle is only activated where there is:

1. a threat of environmental harm which is serious or irreversible (i.e. not just trivial harm); and
2. Where there is a level of scientific uncertainty as to that threat.

In other instances, the principle is said to not apply.

¹⁰ 1992 *Rio Declaration on Environment and Development*, UN Doc. A/CONF.151/26 (vol. I) / 31 ILM 874 (12 August 1992).

¹¹ *United Nations Framework Convention on Climate Change*, concluded 9 May 2009, A/RES/48/189 (entered into force 20 January 1994), Art 3(3).

¹² Owen McIntyre and Thomas Mosedale, ‘Precautionary Principle as a Norm of Customary International Law’ (1997) 9 *Journal of Environmental Law* 221, 223.

ENDANGERED SPECIES AND THE PRECAUTIONARY PRINCIPLE
DISCUSSION PAPER FOR WORKSHOP AT QUT, Friday 17 October 2014.

At the heart of the principle is the notion that, where activated, decision makers should take a precautionary approach to their decision-making. However, this does not just involve totally avoiding or prohibiting development or actions which might irreversibly harm the environment – although that is an aspect to the principle in some instances. The principle also imposes a positive obligation on decision makers to actively address uncertainty.

As the IUCN concludes in its 2007 guidelines on implementing the principle:

*The Precautionary Principle requires more than careful anticipation, avoidance and mitigation of potential harm from human activities that are already underway or proposed for the future. It requires a forward-looking stance of taking care for the future in the sense of actively preparing, planning and providing for it. It encourages humans to commit themselves to the future of life on Earth by ensuring that evolutionary processes and life-support systems continue to be replenished and that the generations to come enjoy lives of dignity, opportunity and beauty. **The Precautionary Principle is therefore a proactive principle** that calls on decision-makers to place the powers of scientific inquiry, technological innovation, political decision-making, legislative enactment, economic production and personal vocation in the service of new and creative ways of living that risk less harm to the health of humans and nature, and sustain the viability of the biosphere.*¹³

The Precautionary Principle in Australian legislation

The precautionary principle is reflected in Australian law in a variety of ways including through legislation, case law and policy objectives.¹⁴ Firstly, it is recognised as one of the ‘principles of environmental policy’ under the *Inter-Governmental Agreement on the Environment* (IGAE) signed by all Australian states in 1992. Under the IGAE, where there are threats of serious or irreversible damage, the principle requires a careful evaluation of any risks to the environment and an analysis of the consequences of taking various options.¹⁵ The effect of including the principle in the IGAE is that it should *guide* environmental decision-making of all levels of government – principally State and Federal.¹⁶

Where the principle does appear in law (in addition to the IGAE), it is generally presented as one of the *elements* of ecologically sustainable development (ESD). This can be confusing as under international environmental law, ‘sustainable development’ has the status of a principle in its own right.¹⁷ Under the Federal Government’s *Environment Protection and Biodiversity*

¹³ IUCN (2007), ‘Guidelines for applying the precautionary principle to biodiversity conservation and natural resource management’

<https://www.iucn.org/about/work/programmes/environmental_law/elp_work/elp_work_issues/elp_work_governance/> 4

¹⁴ Anne Weier and Paul Loke, ‘Precautionary Principle: two Australian case studies’ (Productivity Commission Staff Working Paper, September 2007) 1

¹⁵ Australian Government, ‘Intergovernmental agreement on the environment’ <<http://www.environment.gov.au/about-us/esd/publications/intergovernmental-agreement>> 3.5.1.

¹⁶ Australian Government, ‘Intergovernmental agreement on the environment’ <<http://www.environment.gov.au/about-us/esd/publications/intergovernmental-agreement>> section 3.5

¹⁷ See Svitlana Kravchenko, Tareq M.R. Chowdhury and Md Jahid Hossain Bhuiyan, ‘Principles of International Environmental Law’ (Chapter 3) in Shawkat Alam, Md Jahid Hossain Bhuiyan, Tareq M.R. Chowdhury and Erika J. Techera (eds) *Routledge Handbook of International Environmental Law* (Routledge, 2013).

ENDANGERED SPECIES AND THE PRECAUTIONARY PRINCIPLE
DISCUSSION PAPER FOR WORKSHOP AT QUT, Friday 17 October 2014.

Conservation Act 1999 (Cth) (EPBC Act), for instance, the precautionary principle is explicitly stated to be an element of ESD.¹⁸ One of the objects of the EPBC Act is to ‘promote ESD’¹⁹ and therefore take account of the principle where relevant. The principle is also referred to explicitly at various stages through the EPBC Act. For instance, section 391 requires Australia’s environment minister to consider the principle:

- in relation to decisions about the international movement of wildlife;²⁰
- when deciding whether or not to grant a permit allowing the exporting or importing of animals or plants (or parts thereof);
- in deciding whether an activity (e.g. a mine, infrastructure or other development) is likely to have a ‘significant impact’ on a part of the environment with national significance;
- in deciding whether an activity (which is likely to have a significant impact) should be approved or not; and
- in relation to decisions about the making of various plans such as ‘wildlife conservation plans’ and ‘threaten abatement plans’.

Also at a national level, the precautionary principle has strong presence in fisheries legislation²¹ and marine protected areas.²²

States and territories across Australia have also incorporated the principle into their environment and natural resource legislation (often as an element of ESD) for example in relation to:

- Water;²³
- Vegetation and forestry;²⁴
- Biodiversity and protected areas;²⁵
- Planning and development;²⁶
- Fisheries;²⁷ and
- Pollution.²⁸

There are some state laws that separately address the precautionary principle, for example the *Environment Protection Act 1970* (Vic).²⁹

¹⁸ *Environment Protection And Biodiversity Conservation Act 1999* (Cth), s 3A(b).

¹⁹ *Ibid* s 3(1)(b).

²⁰ *Ibid* s 303BA.

²¹ *Fisheries Management Act 1991* (Cth) ss 3,3A and *Fisheries Administration Act 1991* (Cth) ss 6, 6A.

²² R. Kearney et al. 36 (2012) *Marine Policy*, 592–597.

²³ See for example, *Water Act 2000* (Qld).

²⁴ *Vegetation Management Act 1999* (Qld), *Native Vegetation Conservation Act 1997* (NSW), *Sustainable Forests (Timber) Act 2004* (Vic), *Forest Products Act 2000* (WA),

²⁵ See for example, *National Parks and Wildlife Act 1974* (NSW),

²⁶ See for example, *Sustainable Planning Act 2009* (Qld), *Coastal Protection and Management Act 1995* (Qld), *Environmental Planning and Assessment Act 1971* (NSW) by reference to the *Protection of the Environment Administration Act 1991* (NSW); *Local Government Act 1993* (NSW); *Coastal Protection Act 1979* (NSW)

²⁷ See for example, *Fisheries Act 1994* (Qld), *Fisheries Management Act 1994* (NSW); *Aquaculture Act 2001* (SA),

²⁸ See for example, *Environment Protection Act 1994* (Qld); *Contaminated Land Management Act 1997* (NSW), *Protection of the Environment Administration Act 1991* (NSW), *Environment Protection Act 1993* (SA), *Environmental Management and Pollution Control Act 1994* (Tas), *Waste Minimisation Act 2001* (ACT), *Environment Protection Act 1997* (ACT).

²⁹ *Environment Protection Act 1970* (Vic), s 1C.

The Precautionary Principle in Australian case law

It has been said that the precautionary principle's central place in Australia's environmental law "is evident in its wide- spread adoption in environmental policy instruments and legislation, as well as through the recognition afforded it by the courts."³⁰ Justice Preston's decision in the 2006 NSW case of *Telstra Corporation Ltd v Hornsby Shire Council*³¹ provides arguably the most detailed examination of the precautionary principle in Australia.³² The *Telstra Case* found that the precautionary principle, 'and the concomitant need to take precautionary measures', was enlivened where two 'condition precedents' or 'thresholds' are satisfied:³³ Firstly, a threat of serious or irreversible environmental damage and secondly, a lack of full scientific certainty.

In respect of satisfying the first condition precedent, a threat of serious or irreversible environmental damage, it is not necessary that there be *actual* environmental damage — a mere *threat* of environmental damage will be sufficient. Secondly, that threat must be a capable of meeting the description of 'serious' or 'irreversible'.³⁴ Such a threat may be direct, indirect, or cumulative, need not be immediate, and should not be viewed in isolation from one another.³⁵ It must not be raised on mere hypothetical conjecture or speculation without a scientific basis.³⁶

In respect of satisfying the second condition precedent, 'a lack of full scientific certainty', where the threatened damage is capable of being quantified or identified with relative certainty - the task is not one of precaution, but prevention.³⁷ Australian courts have in the past found significant gaps in scientific knowledge to exist, for example, regarding the population and habitat of a species,³⁸ as well as conflicting scientific evidence as to odours.³⁹

Courts in other jurisdictions have had regard to the precautionary principle, but not to the extent of NSW. In Queensland's Land Court for instance considering the 2014 approval of one of the world's biggest coal mines, uncertainty was raised about the impacts of the mine on groundwater. The Land Court observed [at 144]:

*"There were instances where the experts each became rather rigid as to the correctness of their opinion compared to that of some of the other experts. For reasons that will become obvious, it is not necessary for me to rule one way or the other on each such issue, although I do make general findings at the conclusion of this part. Suffice it to say that such evidence simply reinforces the doubt in my mind as to the ultimate impacts of the mining activities on groundwater. This in turn means that, in my view, a precautionary approach must be taken to the issue of groundwater."*⁴⁰

³⁰ Jacqueline Peel, 'Interpretation and Application of the Precautionary Principle: Australia's Contribution.' (2009) *RECIEL* 18 (1),

³¹ (2006) 67 NSWLR 256 ('*Telstra Corporation*').

³² Justice Stephen Estcourt, 'The Precautionary Principle, the Coast and Temwood Holdings' (2014) 31 *Environmental and Planning Law Journal* 288, 290.

³³ *Telstra Corporation* (2006) 67 NSWLR 256, 269 [128].

³⁴ *Ibid*, 269 [129].

³⁵ *Ibid* 269 [130].

³⁶ *Ibid* 269 [134]–[137], 275 [159].

³⁷ *Telstra Corporation* (2006) 67 NSWLR 256, 273 [149].

³⁸ *Leatch v National Parks and Wildlife Services* (1993) 81 LGERA 270

³⁹ *Yamauchi v Jondaryan Shire Council* (1998) QPELR 452.

⁴⁰ *Hancock Coal Pty Ltd v Kelly & Ors and Department of Environment and Heritage Protection* (No. 4) [2014] QLC 12

ENDANGERED SPECIES AND THE PRECAUTIONARY PRINCIPLE
DISCUSSION PAPER FOR WORKSHOP AT QUT, Friday 17 October 2014.

The Court then went on to recommend the mine be refused, or, in the alternative, that it be granted on the basis of particular conditions being satisfied, including that “all concerns pursuant to the precautionary principle are resolved”.⁴¹

The Precautionary Principle in Australian policy

Australia's guiding framework for conserving terrestrial and marine biodiversity is ‘*Australia's Biodiversity Conservation Strategy 2010-2030*’. A key principle of the strategy is that “knowing that our knowledge is limited, we should apply the precautionary principle while employing adaptive management approaches using new science and practical experience”.⁴² This seems to reflect an adoption in policy of the principle. In addition, the following are examples of where the precautionary principle is included within marine/fisheries policy:

- **Marine Reserves** – The Legal Framework for Commonwealth Marine Reserves references the precautionary principle stating ‘A lack of full scientific certainty should not be used as a reason for postponing measures to prevent degradation of the natural and cultural heritage of a reserve or zone where there is a threat of serious or irreversible damage’.⁴³
- **Sustainable Management of Fisheries** - A precautionary approach should be used in all stages of fishery management, from planning through to assessment, enforcement and then re-evaluation.⁴⁴
- **Review of Commonwealth Fisheries Management Legislation** - The department recommends that the review of fisheries legislation consider developing similar guidance around the application of the precautionary principle in administering fisheries legislation.⁴⁵

It appears the precautionary principle is included reasonably widely in Australian Government policy particularly in the Department of the Environment⁴⁶ although its application in practical situations is unclear. Even where it is not explicitly referred to in policy or legal documents, it is likely to still be relevant ‘because it’s widespread acceptance in the environmental policy context has imbued it with general relevance for environmental decision making’.⁴⁷

⁴¹ Ibid, at [432]

⁴² Australian Government, Natural Resource Management Ministerial Council (2010), Australia’s Biodiversity Conservation Strategy 2010-2030 <<http://www.environment.gov.au/system/files/resources/58321950-f8b6-4ef3-bb68-6f892420d601/files/biodiversity-strategy-2010.pdf>>

⁴³ Australian Government, Commonwealth Marine Reserves – Legal Framework <<http://www.environment.gov.au/topics/marine/marine-reserves/overview/legal-framework>>

⁴⁴ Australian Government, Guidelines for the Sustainable Management of Fisheries - <<http://www.environment.gov.au/system/files/resources/97ff9461-5ccf-49cb-9368-8bde5f243c0b/files/guidelines.pdf>>

⁴⁵ Australian Government, Department of Sustainability, Environment, Water, Population and Communities, submission to the review of Commonwealth fisheries management legislation from the Department of Sustainability, Environment, Water, Population and Communities <http://www.daff.gov.au/data/assets/pdf_file/0009/2230767/DSEWPAC.pdf>

⁴⁶ Ibid.

⁴⁷ W Gullett, ‘The threshold test of the precautionary principle in Australian courts and tribunals: lessons for judicial review’ in E. Fisher, J. Jones & R. von Schomberg (eds.), *Implementing the Precautionary Principle: Perspectives and Prospects* (pp. 182-201).